

LEADERSHIP

on the Digital Battlefield

by Colonel (Ret.) Bruce B. G. Clarke



The armies of the world are currently struggling with the strategic and tactical implications of digital technology. The United States Army is finally fielding the M1A2 tank with its Intervehicular Information System (IVIS); the Royal Saudi Land Forces were the first to have a battalion in the field with the M1A2, and other nations are trying to catch up with similar systems that are not as sophisticated. In each case, military leaders are struggling with the implications of digital technology and the information that it may make available to field commanders.¹ Some see this change as evolutionary, others as revolutionary. Those that see it as evolutionary are more willing to struggle with the issues that always accompany such a transition. Those that see it as revolutionary are more prone to see the information sky as falling on them.² In actuality, reality is somewhere in between. This essay will attempt to show that the digital battlefield is not something so new that command and control, i.e. leadership, is different on that battlefield. To think the opposite is a fatal mistake. It will also be fatal for the commander who tries to micromanage his unit or forgets the tenets of leadership.

The Political Nature of War

Before discussing leadership on the battlefield, one must understand why soldiers are on the battlefield — to force an opponent to change his political objectives to accommodate ours.³ The true challenge is to translate political goals into militarily achievable objectives. Digital technology and instant communications may facilitate this process by allowing for the rapid transmission of observable intelligence. It will neither replace human intelligence nor perform the analysis that is necessary for the determination of centers of

gravity and achievable objectives. These are mental processes that are dependent upon subjective, rather than objective, analysis.

If we are not careful, we will forget the entire objective of warfare. For example, a recent edition of the *Army Times* reported that the probability of victory was listed at between “51 and 85%” based upon the casualties that are expected to occur in a war in Southwest Asia in the year 2001. In his book, *On Strategy*,⁴ Harry Summers tried to convince future military leaders that the whole concept of body count was useless. In his work, he quotes a North Vietnamese colonel as saying that the fact that the North Vietnamese Army lost every battle, measured in body count, was irrelevant to who won the war.

The key to victory is for the strategist to synchronize the elements of power so that the opponent sees more to gain (less to lose) by changing his objectives to accommodate ours. As Summers pointed out, this will to resist cannot be calculated in casualties (body count). It is an intangible piece of the strategic calculus and thus not susceptible to digital manipulation.

A classical example of where a force won the war and lost the peace is Finland in the Russo-Finnish War. The Finns won every battle and inflicted casualties at the rate of about 40 to 1, but lost. Additionally, the final terms were more odious because of their success on the battlefield. So much for body count and for our ability to “calculate” victory. Therefore, when we talk about “victory,” we should not link it to casualties or exchange ratios. We should talk about the achievement of political objectives. In future wars, digital technology can assist in achieving such a victory, but not by replacing classical strategic/political-military thought.

Future Warfare

To understand the application of digital technology to the battlefield one must also understand the nature of future war. Except in the Mideast or the valleys and mountains of Korea, warfare in the future will be characterized as geographically isolated events on a highly dispersed battlefield of small unit actions — platoons and companies. The battles of the Fulda gap or the North German Plain are a thing of the past. Even the potential for Desert Storm-levels of conflict has been minimized by the cost of waging war. Armies of the future will be unable to afford the mass formations of the attrition warfare of the past. They will be reduced in size, though not necessarily scope (because of technology). The warfare of Frederick the Great, characterized by maneuver for strategic advantage so as to “win” with minimal casualties, will be the warfare of the future. Mass will be achieved by fires and movement over much larger areas by numerically smaller forces. However, in many cases the superiorities — information, accuracy, decision speed,⁵ etc. — offered by the situational awareness made possible by digital technology may allow for overwhelming force to be achieved without overwhelming numerical superiority.

This warfare of maneuver will be focused on strategic objectives.⁶ It is critical to again note, at this juncture, that every battle and action should contribute to the achievement of the political objective.⁷ It is this focus that the battalion and brigade commanders should provide. In the few cases where division flags may be on the battlefield, this will be even more true.⁸ These commanders’ purpose will be the translation of broad political-military objectives into tactical missions and the maintenance of focus, while minimizing casualties. It cannot be the over-su-

pervision of the tactical employment of platoons and vehicles that some fear.⁹

Given the coalition nature of most future conflicts, the battalion and brigade level commanders will spend a significant amount of time working the multitude of problems that will come with such relationships. They must also work to provide focus and unity of purpose with forces that may not be digital, or whose digital system may not integrate with their own.¹⁰

In short, the division or brigade commander of the future will have a multitude of new tasks — but they will not be purely of an informational nature, as some have suggested.¹¹ The commander will have his hands full providing military objectives that are in consonance with the political goals,¹² the resulting focus, maneuver guidance, and coalitional support.¹³ He will be too busy to over-supervise. The new demands of the expanded horizons and variables of the “battlefield” will preclude over-supervision.

METT-T and the Digital Battlefield

Once one understands the above, one must still deal with the battlefield reality of overcoming the opponent's military will to resist so that he will change his objectives to accommodate ours. Winning the battle, as long as it is in fulfillment of the political objective, is where digital technology is truly applicable. Technology may allow the commander to more accurately accomplish his mission and enemy analysis. He may have more visual and electronic intelligence on the enemy and an increased appreciation of the terrain. He may have an “accurate” picture of the physical status of his own troops. But, he will only have a true comprehension of his own troops' morale and well-being by interacting with them. This is what true leaders do. It is in this subjective area that leadership will remain critical to success on the battlefield. The abilities discussed in several articles¹⁴ of information management and other technical skills will in fact be important, but leadership will remain critical — not the ability to manage or manipulate data, but the ability to relate to and motivate soldiers to operate the machinery of war, the machinery critical to the conduct of massed, accurate fires, and the delivery of digitally controlled munitions.¹⁵ Digital technology may allow for a compression of time if

one side's capability is superior to the others.

A commander's ability to know his enemy and his own ability to collect and process information, and then exploit that information to deliver highly accurate fires, will be critical. If the enemy is also capable of collecting, processing, and acting upon such data, leadership and initiative will be the critical differences on the battlefield. The company commander who exercises initiative because he understands the commander's intent and the focus of the campaign will bring success, while the company commander who waits for overly detailed instructions will be contributing to the defeat of his unit by surrendering the initiative. A sophisticated enemy will also cause increased dispersion to avoid creating too lucrative a target. The unit will mass as Frederick did at the strategic time and place. This much more fluid battlefield is both a result of, and a survival necessity of, digital technology.

When one gets to the turret, where the massing of forces and/or fires will truly occur, leadership will continue to be the decisive factor. The leader at the head of his company or battalion will know whether the data in the digital report on his screen is accurate and timely.¹⁶ He will also appreciate the rhythm of the battle and be able to cut through some of the fog of war. This is a critical point. Many pundits seem to assume that digitally generated data will eliminate the fog of war. This is not true. The data that is available to the commander will be as accurate and timely as the sources of the data and the ability of the opponent to manage, confuse, obfuscate, or deny that data. The current discussion assumes away these considerations. The fog of war may be different, but it will still be there, and both sides of a fight will be seeking to increase it on their opponent's side, while reducing their own. This is the information war that the Tofflers talk about.¹⁷ At the battlefield level, it is not a new phenomenon — it is simply a repackaged one. The battlefield commander has always sought to deny the enemy information on his own capabilities and vulnerabilities, while gaining and exploiting the opponent's. What may have changed are the weapons that are available to do this.

On the battlefield, the leader also will be engaged in an informational struggle of a personal nature — sorting the rele-

vant from everything else. This sorting will be between digital information on a screen, down-linked images from battlefield visual sensors and, most importantly, his own observations and emotions. The sense of history and precedent that has made it possible for military leaders to take the initiative and make gutsy, but correct, decisions will not go away because of the advent of digital technology. Leadership and the personally evaluated factors of METT-T will remain critical for battlefield success.

Finally, as noted, it is the leader that must also consider his own vulnerabilities. This consideration takes on added importance as the opponent of the future gains a similar capability. The ability to target, confuse, mass quickly, disperse, and respond quickly will not be a one-sided set of attributes. Both sides may have them. At this point, it will be classical leadership, not the manipulation of data, that will determine success on the battlefield.

Conclusion

The successful military of the future will learn how to manage data and process it without becoming overly enamored with it, or enslaved by it. The great battlefield captains of the future will be students of history and leaders of men who understand the limits, vulnerabilities, and advantages that flow from digital technology. They will not forget the importance of the individual serviceman to the success of the unit. They will understand that, because something is displayed on a video terminal, it may still contain the fog and friction of war. Finally, they will have a greater appreciation for the political purposes of the conflict — not just the technical. The challenge for training future combat leaders is thus to ensure that they don't become prisoners of a video screen full of data at the expense of realistic, challenging, dirty training.¹⁸ It is the exhausting tactical reality of a Ranger School or an NTC rotation where training for war occurs — not behind a video screen.

As the understanding of the dynamic relationship between battlefield events and political objectives matures, the combat leader of the future will need to be mentally flexible, technically competent, and physically prepared to meet these new challenges of what it means to win.¹⁹

Notes

¹MG Maggart, "Armor and Cavalry in Transition — Time to Inventory Your Tool Bag," *ARMOR*, Jan-Feb 1996. He argues that the tools of the future are currently not developed in formal instruction or unit training programs.

²CPT R.L. Bateman, "Force XXI and the Death of Auftragstaktik," *ARMOR*, Jan-Feb 1996.

³Bruce B.G. Clarke, "Conflict Termination: A Rational Model," *Journal of Conflict and Terrorism*. In this article, Clausewitz was referred to as highlighting the political importance of the meaning of winning.

⁴Harry Summers, *On Strategy*.

⁵Decision speed may be accelerated because of the ability to more quickly gather and transmit data, but also because of the lower levels (compared to classical military thought) that will be making the decisions — battalions rather than divisions, etc. See 12 below.

⁶Hooker, et al, *Maneuver Warfare: An Anthology*. In this work, the authors discuss maneuver warfare from several perspectives. The one point that emerges is the criticality of the commander's intent for providing this focus while allowing individual initiative to exploit the tactical situation.

⁷Manwaring, Olsen et al, *Managing Contemporary Conflict: Pillars of Success*. "End State Planning." In this chapter, I discuss focus. Focus is critical in the warfare of the future.

⁸In the authors view, future engagements will be fought by battalions and maybe a brigade that is part of a joint task force. In short, the division of today and yesterday will have evolved into a tactical formation in the Israeli model, capable of providing Command and Control of Joint Forces — the Joint Force Tactical Headquarters.

⁹Bateman, *op. cit.* CPT Bateman argues that digitization will result in the emasculation of the subordinate commander because of the tendency for higher level commanders to meddle in their jobs. CPT Bateman has done a service by beginning the process of pointing out why this should not happen. Hopefully, my future paragraphs will add to this fine effort. Those of us who experienced the stacked helicopters of the Vietnam War understand clearly the imbedded problems of such over-supervision.

¹⁰The integration of digital technology is turning out to be extremely difficult for the U.S. Army. Rather than apply IVIS or some form of IVIS to every radio-equipped component on the battlefield, they have elected to have every system have its own digital formats, routing matrices, etc. This is the source of much of the Army's difficulty. It should be pointed out that the routing matrix in IVIS, that controls the distribution of digital communications from every M1A2, may be the technical solution to CPT Bateman's emasculation concerns.

¹¹Maggart, *op cit.*

¹²Dave Jablonsky. COL (Ret.) Jablonsky has argued that the tactical, operational, and strategic levels of warfare will be compressed by digital technology. This may be true in the clas-

sical theater commander, component commander, corps, division, brigade, etc. levels of command because each level will be planning simultaneously based upon digital data. However, what we are arguing here is that there most likely will not be those intervening levels of command. The brigade commander will also be the ground component commander and his battalions will be operating over greatly dispersed areas in a semi-independent nature. Such a scheme is very similar to operations in an unconventional warfare situation. These forces will mass at least their fires when required, but will operate more autonomously the rest of the time. The force developer may see this as an opportunity to reduce the overall size of the force, while the student of the post cold war world will realize that there may be numerous such "small scale" operations occurring in multiple theaters at any one time.

¹³In the Vietnam War, there occurred a classic example of a division commander understanding and working at the interface between the political and military. On 1 April 1968, the First Cavalry Division, commanded by MG John J. Tolson, attacked along Highway 9 in northern South Vietnam to relieve the siege of the Khe Sanh combat base. Several days earlier, the division had received its next mission — to attack into the Aschau valley and relieve the pressure on Hue. Major Paul Schwartz, the division plans officer, had prepared a concept that included continuing the attack along Highway 9 west into Laos, turning south along the Ho Chi Minh Trail, destroying the trail in the process and then entering the valley from an unexpected direction, thus achieving tactical and maybe strategic surprise. The 1 April briefing to General Tolson was very brief. He turned to the assembled planners and said: "You obviously didn't hear the President's speech last night. He announced a partial bombing halt. What you are proposing is politically impossible."

¹⁴Maggart, *op. cit.* One can even make the argument that the young soldier entering the Army with his computer and data skills will need more traditional leadership skills and experiences, not a focus on these computer skills. This argument is based on the concept that the society is providing the digital skills and the military should develop the leadership skills.

¹⁵Massed fires is of course an artillery concept. But it is also the goal of synchronization and applies to Armor units as they maneuver to close with and destroy the enemy. CPT Pryor, "M1A2, Smart Ammunition, Time and Space Theory," *ARMOR*, Jan-Feb 1996. This article and the analysis that accompanies it proves two things: That the analytical techniques necessary to operate on the digital battlefield are already growing within the military, and that static, non-fog of war type of analysis referred to in the 18th footnote of this paper and elsewhere is already becoming prevalent. Though an excellent analysis and understanding of the tremendous capabilities that will soon be on the battlefield, the article displays the "bean-counter" mentality that this article is railing against.

This article does bring home the concept of achieving mass without numerical superiority and highlights the lack of OPFOR capability

analysis that can get a bean counter into difficulty.

¹⁶Every IVIS SOP or discussion highlights the requirement to initially submit a contact report verbally and then, once one has lased and engaged, to send the digital contact report.

¹⁷Tofflers, *The Third Wave*. The critical point that is missed in all the discussion of future warfare is the concept of fighting an opponent who has a different level (wave) technology. The third wave force must still be capable of fighting and winning against a second or first wave force. Guerrilla wars and large, low technology forces are not yet a thing of the past.

¹⁸Finally, should we allow leaders to become captives of the tube? If we do, we run several risks. The most important of which is the depersonalization of warfare. If warfare comes to be viewed as an impersonal process, it will be easier for leaders to get soldiers into wars and more of them will die. The exact opposite of what a true leader will do.

¹⁹Bruce B.G. Clarke, "Conflict Termination: What Does It Mean to Win," *Military Review*, November 1992, pp. 85-86.

Colonel (Retired) Bruce B.G. Clarke is the Training Manager at the Royal Saudi Land Forces Armor Institute in Tabuk, Saudi Arabia. Before retiring, he was the Director of U.S. National Security Studies at the Army War College, Carlisle Barracks, Pennsylvania. Before that, he commanded the 2d Brigade, 1st Infantry Division (Mechanized), Fort Riley, Kansas. Colonel Clarke also commanded the 2d Squadron, 11th Armored Cavalry Regiment, and A Troop (Abn/Mech), 3d Squadron, 8th Cavalry Regiment, 8th Infantry Division, both in Germany. He has served as a District Advisor in the Republic of Vietnam, a Political-Military Analyst in the Arms Control and Disarmament Agency, Washington, DC, and as a staff officer on the Army Staff. He is a 1965 graduate of West Point and taught in the Department of Social Sciences there. He has an MA in Political Science from UCLA, and is a graduate of CGSC and the National War College.